DEPARTMENT OF INTERNAL MEDICINE

SECTION OF ENDOCRINOLOGY

PATIENT EDUCATION

HYPOTHYROIDISM

INTRODUCTION: The thyroid is a butterfly-shaped gland in the middle of the neck, located below the voice box and above the collarbones. T3 and T4 are hormones produced by the thyroid that regulate the body’s metabolism. Thyroid function is controlled by a gland in the brain, known as the pituitary, which produces TSH. TSH stimulates the thyroid to produce T3 and T4. Hypothyroidism is a condition in which the thyroid gland does not produce enough thyroid hormone, slowing down the body’s metabolism.

CAUSES:

* Primary hypothyroidism – due to a problem in the thyroid gland itself and/or due to antibodies against the thyroid
* Certain medications can decrease thyroid function
* Can follow medical treatment for hyperthyroidism using antithyroid medication
* Can follow Radioactive iodine treatment, and thyroidectomy
* Secondary hypothyroidism- due to a decrease in TSH production by the pituitary gland

SYMPTOMS: The extent of symptoms depends on the severity of the hormone deficiency and the speed with which the deficiency developed. Thyroid hormone stimulates metabolism, and most of the symptoms of hypothyroidism reflect slowing of metabolic processes.

* Fatigue, shortness of breath
* Weight gain
* Difficulty tolerating cold weather
* Hair may become coarse and thin, eyebrows may disappear, and nails may become brittle. Skin may become dry and thick.
* Mild swelling around the eyes
* Slowing of heart rate, mild hypertension, raising of blood cholesterol level
* Hoarse voice, sleep apnea
* Constipation
* Menstrual cycle irregularities can make it difficult to become pregnant. And pregnant women with hypothyroidism have an increased risk for miscarriage during early pregnancy.
* Myxedema coma – a life threatening condition, but very rare, in a person with severe hypothyroidism

DIAGNOSIS: TSH is the most sensitive test since it may be elevated even with small decreases in thyroid function. T4 may be measured to confirm and assess the degree of hypothyroidism.

TREATMENT: The majority of hypothyroidism cases are chronic and require lifelong treatment. The treatment is thyroid hormone replacement therapy (Levothyroxine). In most cases, symptoms of hypothyroidism begin to improve within two weeks. Your doctor will prescribe an initial dose, recheck TSH after six weeks, and adjust the levothyroxine dose accordingly.